E-5

Ziegler Chemical & Mineral Corp.
P.O. Box 455
Great Neck, N.Y. 11021

February 7, 1979

Mr. Michael Thompson
Reclamation Hydrologist
State of Utah, Div. of Oil, Gas & Mining
1588 West North Temple
Salt Lake City, Utah 84116

Dear Sir:

Enclosed please find the Mining Plans for Ziegler Chemical & Mineral Corp. on the I-4, E-5 and 8-A Gilsonite Mines.

Please advise me if there is any other information required. Thank you for your time and consideration in this matter.

Very truly yours,

Ziegler Chemical & Mineral Corp.
BY:

Robert E. Covington

Robert E. Covington, Consultant

REC:mc

Encls.

cc: Mr. Gordon Ziegler, Jr.
Frank Godina, Bonanza, Utah

MINING PLAN FOR

ZIEGLER CHEMICAL & MINERAL CORP.

GILSONITE MINE E-5

ON THE LITTLE EMMA VEIN

PATENTED LANDS,

SECTION 32, T9S-R24E

UINTAH COUNTY, UTAH

BY

ROBERT E. COVINGTON

CERTIFIED PROFESSIONAL GEOLOGIST NO. 1705

and

PAUL RANDOLPH and JEFF WINGERTER

February 6, 1979

VERNAL, UTAH

MR FORM 4

Page 1 of 1

FILE NO. _____

DATE: February 7, 1979

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1588 WEST NORTH TEMPLE
SALT LAKE CITY, UTAH 84116

DECLARATION OF EXEMPTION

* * * * * * * * * * * * * * * * * *

(See Mined Land Reclamation Act 40-8-4(6))

As provided for in Section 40-8-4 UCA 1953, I hereby declare an exemption from the "Utah Mined Land Reclamation Act", in that less than 500 tons of material is being mined or less than two (2) acres of land is being excavated or used as a disposal site during a period of twelve (12) consecutive months, from the following designated claims, leases, or fee acreage.

NAME OF CLAIM, LEASE, OR FEE ACREAGE	LOCATION ¼,¼ SECTION	TOWNSHIP	RANGE	COUNTY
Patented Land	NE¼NW¼			
E-5 on Little Emma Vein	Sec. 32	9S	24E	Uintah

Commodity: GILSONITE

Date: February 7, 1979

Signature: Robert E. Covington
Robert E. Covington, Consultant
For: Ziegler Chemical & Mineral Co

OPERATOR: Ziegler Chemical & Mineral Corp.

ADDRESS: P.O. Box 455, Great Neck, New York, 11021

TELEPHONE: (516) 482-8600

#This form needs to be filed one time only. In the event more than the minimum size requirements are mined, a Notice of Intention to Commence Mining Operations (MR Form 1) and a Mining and Reclamation Plan (MR Form 2) will need to be filed with this office.

MINING APPLICATION NO. _____

Date _____

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1588 West North Temple
Salt Lake City, Utah 84116

E-5 Gilsonite Mine on the Little Emma Vein (Patented Land) NE¼ NW¼, Sec. 32, T9S-R24E, SLM, Uintah Co.,

MINING AND RECLAMATION PLAN

(Other forms may be used in lieu of MR 2, provided they contain the same information)

1. Name of Applicant or Company Ziegler Chemical & Mineral Corp.
2. Proposed type of operation underground mine
3. (a) Prior Land Use(s) none

   (b) Current Land Use(s) none

   (c) Possible or Prospective Future Land Use(s) none
4. What vegetation exists on the land proposed to be affected sagebush

   (a) Types and Estimated Percent cover or density: sparce
5. What is the range pH of soil before mining? N/A pH

   Name of Person or Agency and method of determining pH _____
6. Site elevation above sea level 5480' ground
7. In case of coal, oil shale, and bituminous sandstone:

   Principal seam(s) and thickness(es) N/A
8. Estimated duration of mining operations 10 years
9. Has overburden, waste or rejected materials been classified as acid or alkali producing? (X) Yes ( ) No

   Does the above material being moved have any other characteristics affecting revegetation? No
10. Will any underground workings or aquifers be encountered? ( ) Yes (X) No

    Describe _____

    Is there an active discharge of water from abandoned deep mines on or crossing the land affected? ( ) Yes (X) No If yes, describe the quality of water being discharged. _____

11. Describe specifically a detailed procedure for: See attached Mining Plan

(a) The mining sequence
(b) The procedure for constructing and maintaining access roads, to include a typical cross-section and a profile of the proposed road grades.
(c) The procedure for site preparation including removing trees and brush.
(d) The method for removing and stockpiling topsoil or disturbed materials.
(e) The method for the placement or containment of all disturbed materials, to include the method for handling of all acid or alkali-producing and toxic material.
(f) A procedure for final stabilization of disturbed materials.

GRADING AND REGRADING

Specifically describe: See attached Mining Plan

(a) Typical cross-section of regrading.
(b) The method of spreading topsoil or upper horizon material on the regraded area and indicate the approximate thickness of the final surfacing material.
(c) What type of soil treatment will be utilized.
(d) The method of drainage control for the final regraded area.
(e) Maximum grading slope.

TESTING

1. Describe method for testing stability of reclamation fill material.

See attached p. 2

Describe method for the testing of soil that is intended to support vegetation See attached p. 2

2. Describe any soil treatment employed as an aid to revegetation _____

See attached p. 2

3. Describe surface preparation of areas intended to support vegetation:

See attached p. 2

REVEGETATION

1. Revegetation to be completed by:

(X) Operator
( ) Soil Conservation District
( ) Private Contractor
Name _____
( ) Other (specify) _____

( ) Hydroseeding
( ) Aerial Seeding
( ) Conventional or Rangeland Drillin
( ) Other (specify) _____

2. Will Mulch be used?
Type _____ Rate/Acre yes (U. S. U rec.) lbs.

3. Revegetation Plan and Schedule - Will be based on Utah State University Soil Testing Laboratories recommendation.

Species	Rate/ Acre	Planting Location	Facing N-S-E-W	Season to be replanted
SEE	ABOVE	NOTE		

4. Will affected area be subject to livestock or wildlife grazing? ( )Yes (X) No Will vegetation protection be needed? NO

5. Will irrigation be used? ( ) Yes (X) No Type _____

6. Describe maintenance procedures for revegetation if needed, until surety release is granted. Monthly field inspection

I, the undersigned Operator, hereby submit this to be my Reclamation and Mining Plan for the area shown on the attached map. I further understand that the operation will be conducted in accordance with the Mined Land Reclamation Act of 1975, and all rules and regulations currently in effect thereunder.

Signed C S Ziegler Jr. Operator Date Feb 27, 1979

Ziegler Chemical & Mineral Corp. BY: [redacted] G. S. ZIEGLER JR., V. PRES.

Taken, subscribed and sworn to before me the undersigned authority in my said county, this 27th day of February, 19 79.

BRIAN LYNCH
NOTARY PUBLIC, State of New York
No. 30-4613944
Qualified in Nassau County
Commission Expires March 30, 1979

Notary Public Brian Lynch

My Commission Expires: 3/30/79

11 (a) See attached mining plan.

(b) Procedure for constructing and maintaining access roads:

Haulage roads have already been constructed and are being maintained by the operator.

(c) Procedure for site preparation:

There are no trees on the site. Sagebrush has been removed. A dozer was used to level an area of 20 square feet for the tipple over the vein and an area of 800 square feet for the hoist house.

(d) Method for removing topsoil:

Topsoil was removed by dozer and stockpiled away from the working area.

(e) Disturbed topsoil:

All disturbed topsoil will be replaced after mining operations are completed by replacement onto disturbed site. Topsoil will be machine packed.

(f) Stabilization:

Final stabilization of disturbed materials will be made by grading and reseeding, (see below).

GRADING AND REGRADING:

(a) Cross-section will conform to present topography with approximately 1 foot of topsoil over it and blended in with the undisturbed surroundings.

(b) Method of spreading topsoil:

A bulldozer will be used to spread the stockpiled topsoil. The approximate thickness of the topsoil will be 1 foot. The original contours will be restored as nearly as possible.

(c) What type of soil treatment will be provided:

Prior to commencement of regrading,soil tests will be run on the topsoil by Utah State University Testing Station to determine pH, fertility rate, etc. The plan is to follow U.S.U.'s recommendations with reference to treatment.

(d) Method of drainage control for entire area:

Natural drainage will be re-established by hand ditching or dozing.

(e) Maximum grading slope will be 2% or less.

TESTING:

1. Describe Method of Testing Stability of Reclamation of Fill Material:

Yardage of topsoil to be removed prior to mining operation is calculated as follows:

Change house, showers and living quarters are provided at the operator's office area located in the SE$\frac{1}{4}$NE$\frac{1}{4}$ of Section 16, T9S-R24E, Uintah County, Utah.

(a) Mining Area:

1 acre = 1613 cu. yards

(b) Haulage Roads:

1 acre = 1613 cu. yards

Topsoil will be replaced with dozer and compacted.

2. Describe any soil treatment to be employed:

Recommendations of soil tests run by U.S.U. will be followed.

3. Describe surface preparation:

Area will be re-graded and mulched. Seed bed preparation will consist of utilizing U.S.U.'s recommendation on seeding. Fertilizers will be applied if necessary to obtain proper soil conditions.

ENVIRONMENTAL IMPACT MATRIX

for

The E-5 Gilsonite Mine,
Ziegler Chemical & Mineral Corp.
on Patnented Lands In
Sec. 2, T10S-R24E

Uintah County,
Utah

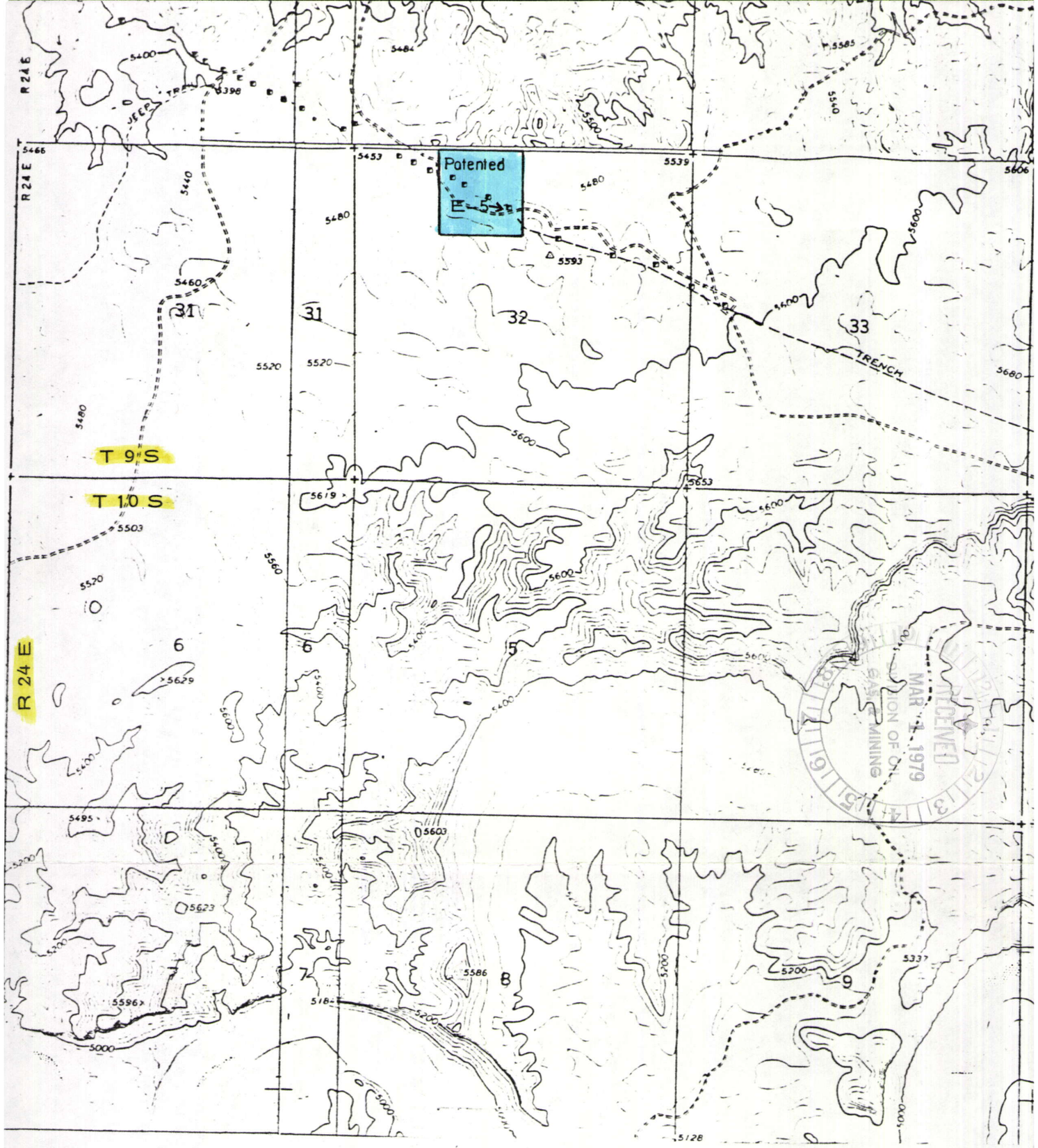
By

Robert E. Covington,
CPG #1705
Vernal, Utah

January 25, 1979

ENVIRONMENTAL IMPACT

					A. Modification of Regime	B. Land Transformation & Construction				C. Resource Extraction					D. Land Alteration	
					Alteration of Ground Water Hydrology	a. Industrial Sites & Buildings	b. Roads & Trails	c. Tipple & belt conveyors	d.	a. Blasting & drilling	b. Surface excavation	c. Well drilling & fluid removal	d. Subsurface Excavation		a. Mine sealing & waste control	a. Automobile
1. EXISTING CHARACTERISTICS OF THE ENVIRONMENT	A. Physical & Chemical Characteristics	1. Earth	a. mineral resources							//	//	//	//		//	
			b. land form			//	//	//			//					//
		2. Water	a. under-ground		//											
		3. Pro-cesses	a. stability (slumps)										//			
	B. CULTURAL FACTORS	1. Land Use	a. Grazing			//	//									
		2. Aesthetic & Human Interest	a. Open Space qualities			//		//								
		3. Cultural Status	a. employment			//				//		//	//			
			b. Population density			//				//		//	//			



ZIEGLER CHEMICAL & MINERAL CORP.

PATENTED "LITTLE EMMA" MINE IN SEC. 32, T.9 S., R.24 E.

Uintah County, Utah

Robert E. Covington, C.P.G. 1705

Scale: 1" = 2000' Feb., 1979 Contour Interval: 40'

Patented